CITY OF COEUR D'ALENE

WASTEWATER UTILITY DEPARTMENT

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Sent via E-mail to: Nickel.Brian@epa.gov

Daniel D. Opalski
Director, Office of Water and Watersheds
U.S. EPA Region 10
Spokane River NPDES Comments
1200 6th Avenue
Suite 900 M/S WW-130
Seattle, WA 98101

Re: Comments on City of Coeur d'Alene WWTP Draft NPDES Permit Number ID-002285-3

Dear Mr. Opalski,

Please accept these comments on the Draft NPDES Permit for the City of Coeur d'Alene Wastewater Treatment Plant (WWTP). As an initial matter, we understand that Region 10 is accepting comments on only those aspects of the draft permit that are listed on Page 2 of the Fact Sheet. The City of Coeur d'Alene would like to reserve the opportunity to respond to any comments that are accepted by Region 10 outside the topics listed on page 2 of the Fact Sheet and to respond to any extensive comments that might be received in opposition to the permit issuance. I also note that while the Fact Sheet acknowledges that the monitoring for dioxin is new and subject to public comments, there is no reference to the new monitoring requirements for PCBs in the current draft permit. We have included comments on the PCB monitoring requirements and the statement in the Fact Sheet regarding PCB monitoring.

Comment 1 Total Phosphorus, $CBOD_5$ and Ammonia Limits

The City of Coeur d'Alene appreciates the thoroughness of the Fact Sheet discussion of the basis for the phosphorous, $CBOD_5$ and ammonia limits. The Fact Sheet correctly notes and cites to the water quality modeling done by Limno Tech, HDR and Portland State University. It should be noted that the limits proposed for these parameters in the Idaho discharge permits resulted from the settlement discussions in the pending challenge to the Washington Spokane River Dissolved Oxygen TMDL and that the limits were broadly endorsed by the parties in that litigation. Any deviation from the limits would threaten the settlement of the litigation and would be manifestly inequitable where the more recent modeling was used to establish limits in Washington discharge permits.

Coeur d'Alene requests that the reporting deadline for seasonal average total phosphorus, $CBOD_5$ and ammonia loads be revised from the October DMR to the November DMR to allow sufficient time for analysis and reporting.

Comment 2 Cadmium and Lead Limits

Coeur d'Alene previously submitted comments on the cadmium and lead effluent limits proposed in the Revised Draft 401 Water Quality Certification. Those comments are attached and incorporated herein as Attachment A. We request that these limits be adjusted in the permit to the extent the State of Idaho Department of Environmental Quality modifies the proposed limits in its final 401 Certification and that the permit allow for modification of the limits following any review of the state 401 Certification.

Coeur d'Alene requests that the text in Part I.B.3 be revised to state, "Effluent loading of zinc and silver (October-June) and concentrations of cadmium, copper, lead, silver and zinc must be reported as total recoverable metal." The language in the draft permit suggests that loading must be reported for all parameters where zinc and silver (October-June) are the only metal parameters with mass loading limits.

Comment 3 Compliance Schedules

Coeur d'Alene submitted written justification for the compliance schedules proposed in the draft permit in letters to the Idaho Department of Environmental Quality on April 13, 2013 and April 22, 2013. Both letters are included as an appendix to the Revised Draft 401 Water Quality Certification. These letters specifically address the need for a compliance schedule for $CBOD_5$. The 2007 draft permit included a compliance schedule for phosphorous and extensive comments were received on that compliance schedule. Coeur d'Alene assumes that Region 10 is not accepting additional comments on the phosphorous compliance schedule and would appreciate the opportunity to respond to any new adverse comments that are accepted by Region 10 on the phosphorous compliance schedule. To the extent EPA is accepting comments on the compliance schedule, Attachment B consists of the 2012 Update to the 2009 Wastewater Facility Plan Amendment (February 2012) ("2012 Update"). The 2012 Update details the technology review for selection of tertiary treatment systems and in Section 9.7.2.2, the schedule for the design, evaluation, construction and optimization of the ultimate treatment system. As presented in this schedule, it will reasonably require at least ten years to attain full compliance with the nutrient limits.

Comment 4 Surface Water Monitoring Requirements

Part I.F.1 requires monitoring stations upstream and downstream from the Coeur d'Alene outfall. The locations have to be approved by the Idaho Department of Environmental Quality. Coeur d'Alene requests guidance as to where the monitoring stations should be located.

Comment 5 Total Residual Chlorine Effluent Limit

Table 1, note 7 states that the average monthly effluent limit for total residual chlorine for July-September is not quantifiable using EPA-approved test methods. Coeur d'Alene requests that the permit clarify that any test results below the detection limit of the test method be treated as zero for calculating monthly mass discharge levels.

Comment 6 PCB and Dioxin Testing

The Fact Sheet correctly notes that it would be improper to derive numeric limits for PCBs at this time as there are no effluent or receiving water data related to the Coeur d'Alene WWTP that could be used to conduct a reasonable potential analysis and derive numeric limits. There is monitoring data indicating PCB concentrations at the state line may be in the range of 106 pg/L. This data does not establish that Coeur d'Alene is a source of PCB concentrations as the concentrations of PCBs in this data would more likely than not be traced to the Superfund site near and around Kellogg, Idaho. The Fact Sheet describes a wide range of effluent data from other treatment plants in the Northwest and throughout the country. While this information may support the imposition of best management practices under the authority of 40 CFR section 122.44(k) to "carry out the purposes and intent of the Clean Water Act," EPA should acknowledge that it does not have sufficient information to conduct a qualitative reasonable potential analysis within the meaning of EPA's Permit Writer's Manual section 6.3.3.

Coeur d'Alene requests clarification in response to this comment as to how EPA will use data collected using the unapproved test method 1668. The permit states that the EPA will be using the data to perform a reasonable potential analysis and derive numeric limits but acknowledges that compliance with such limits cannot be enforced using an unapproved test method. Is it correct to assume that this statement in the Fact Sheet regarding the use of method 1668 is a statement of current intentions and not a permit decision? That is, is it correct to assume that the reasonableness and legality of the potential future use of 1668 data to set permit limits will be fully considered in future permits and is not being determined in this permit cycle?

This is an important issue given the expense, variability and uncertainty regarding the reliability of the data that will be collected using an unapproved test method.

Comment 7 Phosphorus Management Plan

Coeur d'Alene requests that EPA delete the phosphorus management plan in its entirety. The City assumes that the tertiary treatment system to be installed will be capable of meeting the final effluent limitations for phosphorus. If so, the extraordinary expense of the Phosphorus Management Plan will be unnecessary. The WEF design manual for wastewater treatment plants lists the average phosphorus discharge per person as being from 1 to 4 grams per day. Using a base population of 45,000 and an average loading of 2 grams per day, then we can expect a daily load of 198 pounds per day. In actuality, we have an influent concentration of roughly 6.5 mg/L and an ADWF of 3.6 mgd. This calculates to an average daily load of 195 pounds per day – within the expected range of phosphorus loading to the WWTP. It would be elusive to reduce this loading and there are no significant industrial dischargers that could be targeted for additional management and control. In addition, EPA should consider that in 1990 Coeur d'Alene enacted a ban on the retail or wholesale sale of phosphorus containing laundry cleaning products. Coeur d'Alene Municipal Code, Chapter 13.28. Region 10 should also acknowledge that the ban in the state of Washington on phosphorus containing dishwashing

detergent as applied to Northern Idaho as distributors only carry Washington compliant products in the Coeur d'Alene market.

It is not equitable for Coeur d'Alene to invest its limited resources in a phosphorus management plan where the City has already increased its customer rates to meet the very stringent final limits. In addition, the capitalization fees for new customers alone were increased from $309.00/pound to $30,188.51/pound for phosphorus. This is an expensive compliance condition that should be removed from the permit absent some demonstrable concern regarding the capability of the tertiary treatment systems that will be installed.

Coeur d'Alene specifically requests that EPA remove influent phosphorus monitoring as required under Part II.B.1. The City has invested substantial funds in developing the best tertiary treatment system for nutrient removal targeted at achieving some of the most stringent water quality-based effluent limitations imposed on any wastewater treatment plant in the country. It is not appropriate for the permit to require ongoing facility assessment in light of this investment. Coeur d'Alene anticipates that it will meet its final effluent limits within the proposed compliance schedule. The City should only have to engage in further phosphorus management planning if it is unable to achieve compliance or the limits change.

Part II.B.1 also fails to define and is therefore unlawfully vague as to what is required to "compile influent and effluent total phosphorus data." Table 1 describes effluent monitoring for total phosphorus. Does EPA intend the Part II.B.1 requirement to compile effluent data to be the same as the effluent monitoring required in Table 1? Table 1 is silent as to influent monitoring for total phosphorus. What would constitute compliance with Part II.B.1 for influent monitoring?

Coeur d'Alene specifically requests that EPA remove the requirement in Part II.B.2 to evaluate the WWTP phosphorus reduction potential. The City has already engaged in an extensive evaluation of multiple treatment trains for phosphorus removal. Based on this information the City has updated its facility plan and secured financing and increased utility rates to construct facilities that are tailored to unique needs of Coeur d'Alene. No further evaluation of phosphorus removal should be required until the current facility plan needs to be updated.

Coeur d'Alene specifically requests that EPA remove the requirement in Part II.B.3 to identify "total phosphorus reduction goals" and any reference to "goals" in Parts II.B.4, 5 and 7 to the extent such goals are anything other than the final effluent limits in the permit. The City should not have to derive "typical values for the type of treatment process employed" by the WWTP. There are no such "typical" values. The treatment system to be developed by the City was the result of a multi-year evaluation of several different treatment systems. The resulting design is unique to Coeur d'Alene and should not at any time be compared to other facilities. Simply stated, the phosphorus reduction goal for Coeur d'Alene is to achieve compliance with its final effluent limits through optimal operation of its existing, and to be improved, treatment plant.

Coeur d'Alene also objects to the potentially vague and burdensome obligation to meet some "typical value" outside its permit limits. We do not believe that it would ever be reasonable or

appropriate to derive a "typical value" for phosphorus removal given the time, expense and care Coeur d'Alene has devoted to evaluating and designing the upgrades to its WWTP.

Coeur d'Alene has committed to finance over $33 million dollars to implement Phase 5C of its Facility Plan. (Attachment B, at 9-71.) This does not include the improvements to the WWTP from 2008-2011 that are detailed in Attachment B at 9-3. EPA should acknowledge that Coeur d'Alene has been engaged in an extensive process to derive a treatment system that is uniquely tailored to its circumstances, the nature of its effluent and receiving water. No component of the system is "off-the-shelf." Rather, the systems have been and are being carefully selected through the Alternatives Evaluation described in Section 9.5 of Attachment B at pages 9-44 to 9-53. This includes a Low Phosphorus Pilot Testing Facility. Those efforts resulted in the recommended alternative in the 2012 Update and schedule for implementation. See Section 9.7 in Attachment B. A key aspect of the implementation will be the staged application of selected treatment technologies to monitor how effective they are as the system is moved from pilot to full-scale operation. The plan includes an iterative process to make sure that the final configuration is optimized to achieve the final effluent limits in the permit. This process, as described in the 2012 Update was commenced based on the developing TMDL information and the 2007 draft permit. At the end of this process, it will not be reasonable to compare the resulting system to the performance of technologies employed at other treatment plants. Coeur d'Alene accordingly requests that the final permit not include a reference to typical performance. The comparison will have little meaning or application to the Coeur d'Alene facility. If EPA includes this language in the final permit, please explain the basis for any future determination of typical performance in the context of the 2012 Update and facilities that will be installed at the WWTP.

EPA should also recognize that Coeur d'Alene has expended almost $48 million dollars since 2004 to complete Phase 4 of its Facility Plan and to initiate the pilot project for low phosphorus; complete the administration, laboratory building and digester control building; and install partial tertiary treatment. *See* Fredrickson, Coeur d'Alene Idaho's Wastewater Treatment Plant History (August 2013), Attachment C, at 4.

Coeur d'Alene requests that EPA remove Part II.B.7 regarding revision of a phosphorus management plan. The performance of the WWTP and applicable phosphorus limits should be addressed in the ordinary course of the permit cycle. Permit limits, which should be the only "goals" that are legally required, should be addressed in that manner and phosphorus removal planning should be addressed in the Facility Plan. It is improper and unlawful for EPA to impose a de facto permit limit through the proposed phosphorus removal planning and deadlines of 180 days as proposed in this permit condition. The City cannot manage its utility, its utility rate base, or public financing obligations when subject to an unpredictable extra-permit process. EPA should explain in response to these comments how the 180 day deadline in this section can be consistent with the ten year compliance schedule to meet the final phosphorus limits.

Coeur d'Alene requests that EPA remove the annual reporting requirements for a phosphorus management plan in Part II.B.8. An annual report in the next permit cycle is redundant and unnecessary. Coeur d'Alene has an extensive phosphorus reduction strategy through its

approved facility plan and the designs for the WWTP upgrades. In addition, the City will be filing monthly DMRs that will, during much of the year, include the results from weekly sampling. Under Section I.D Coeur d'Alene will have to file annual reports on its progress towards meeting the final phosphorus limits including an engineering report, a report on full scale pilot testing results and implementation plan, notice that design has been completed, and bids have been awarded to commence construction, a report that construction has been completed and a report providing details of a completed start up and optimization phase of the new treatment system. It is unlikely during the compliance schedule that the City will have anything else to report in terms of phosphorus management. Even if the City engaged in the "planning" required under Part II.B, it is more likely than not that the City would ultimately rely on Part II.B.6.g "total phosphorus removal at the WWTP" and Part II.B.6.h "ongoing monitoring" as its specific actions under the plan throughout the compliance period. As indicated above, Coeur d'Alene has invested substantial resources in its EPA-approved Facility Plan and the WWTP upgrades. EPA does not need a separate report under Part II.B.8 to determine the status of the implementation and optimization of the WWTP upgrades.

Comment 8 Best Management Practices for PCBs and Dioxin

Coeur d'Alene requests clarification of the obligations under Part II.I.1 for developing and implementing a Toxics Management Plan. The draft permit requires that the plan be submitted within 180 days and that notice be provided that it has been implemented within one year. These are very short time frames for activities that will require a long-term iterative process (to the extent that the City is actually capable of implementing a management plan for some of the required elements). One requirement is contradictory: the permit requires notice that the plan has been implemented within one year but requires a public education program within two years.

Coeur d'Alene requests that the deadline to develop the plan be extended to one year. The requirements of the plan will be extensive and will reasonably require at least one year to fully assess and develop.

Coeur d'Alene requests that the plan include a schedule for implementation. It is not reasonable to assume that the elements of the plan can all be implemented within one year.

Coeur d'Alene requests that the plan be subject to EPA approval. Developing and implementing the plan will require a substantial commitment of local resources and the City should not have to guess as to whether it is in compliance with the permit. EPA approval will also provide an important guidance in determining if the City is in compliance with the provisions of the permit.

Coeur d'Alene requests clarification as to what EPA expects in regard to Part II.I.1., inflow and infiltration. The City already has a program to address this through its Uniform Wastewater Requirements Ordinance, Chapter 13.20. We would not alter the program to specifically address PCBs and dioxin. Does EPA expect more than this effort? The sewer use ordinance has previously been reviewed and approved by EPA.

Coeur d'Alene requests clarification of EPA expectations for controlling industrial and commercial sources under Part II.I.1.b. We are not aware of any circumstances where discharges containing PCBs or dioxin would cause a pass through or interference with the WWTP. Coeur d'Alene requests that this condition be removed from the permit as it is irrelevant and will have no practical application. If it is not removed, EPA should explain in response to these comments any circumstance where there might be a pass through or interference within the meaning of the City wastewater ordinance and EPA pre-treatment standards.

Coeur d'Alene requests that EPA remove the requirement for a new local pre-treatment standard for PCBs at 3 µg/L. The City has reviewed its industrial and commercial customers and cannot identify any customer with effluent that might be a particular source of PCB loading. Coeur d'Alene should be allowed to identify any potential PCB problems in its effluent before engaging in source control through its pre-treatment program. The City ordinance and EPA regulations regulating pre-treatment do not require monitoring for PCBs so setting any pre-treatment limit now would be meaningless and unnecessary.

Coeur d'Alene requests clarification regarding the specific requirements under Part II.I.1.c as to what is meant by "direct" control. Is this intended to mean the operation and maintenance of WWTP facilities, all City owned facilities or some broader control through contracting and permitting?

The requirement that the City divest itself of all machinery and electrical equipment containing insulating oil manufactured prior to 1979 is not necessary and should be deleted. The modern era of construction at the WWTP began with the completion of a secondary clarifier as Phase I in 1983. Since then we have completed Phase 5B in 2011. All electrical equipment at the treatment plant, the compost facility and the City's ten lift stations have been completely replaced with post-1990 equipment.

EPA should provide guidance as to its expectations in regard to construction materials, paint, caulking, ink, dyes and lubricants. Coeur d'Alene cannot regulate the concentrations of PCB in these materials. The City should not be required to test and dispose of materials that it already has in its inventory and should not be put to the economic hardship of having to procure PCB-free substitutes for materials that are sold with PCB concentrations that fully comply with EPA regulations. It is inequitable, and probably unconstitutional, for EPA to require a municipality to adopt regulations in this particular area that are more stringent than EPA's regulations.

In general, Coeur d'Alene is unable to determine what specifically will be required under the Toxics Management Plan and is very concerned about the expense and efficacy of such actions. In light of these concerns, Coeur d'Alene requests that the section be deleted pending the results of PCB and dioxin monitoring and the City's participation in the regional task force. These efforts will reasonably define specific problems and potential solutions for the City that could be a basis for a Toxics Management Program in a modified permit or in the next permit. Coeur d'Alene has further concerns that high removal of PCBs may have a deleterious effect on the City's production of Class A biosolids.

Comment 9 Spokane River Regional Toxics Task Force

Coeur d'Alene was pleased to have been able to come to agreement with environmental groups regarding participation in the task force. The success of that effort will depend, however, on Region 10 participation in the task force as well. In response to these comments, EPA should affirm that it will become a signatory to the task force agreement and that it will seek funding to support the task force.

Comment 10 Operations & Management Plan

The contents of Section II.A Operations and Maintenance Plan should be revised to provide that the Operations and Maintenance Plan may be made available electronically to EPA.
Coeur d'Alene maintains its plan in electronic format and does not have a hard copy available at the plant during inspections. This was an issue during a September 2012 inspection when the plan was not accessible on one computer terminal but the inspector did not have time to return to the operations center to view the plan on another computer. We suggest the following additional sentence: "The plan may be maintained and may be made available to EPA in an electronic format."

Comment 11 Schedule of Submissions

The schedule of submissions needs to be revised to reflect the correct sections of the permit and the deadlines stated in the text of the permit.

On behalf of the City of Coeur d'Alene, I appreciate your consideration of these comments.

Sincerely,

H. Sid Fredrickson
Wastewater Superintendent

Attachments

A. Coeur d'Alene Comment Letter to Idaho DEQ on Draft 401 Certification
B. 2012 Update to the 2009 Wastewater Facility Plan Amendment with approval letter from Idaho DEQ.
C. H. Sid Fredrickson, Coeur d'Alene Idaho's Wastewater Treatment Plant History (August 2013).